

ABSTRACT

5 A fluorescent immunoassay employing the interior surface of a capillary tube
is provided. Devices to permit immunoassays using one or more capillary tubes,
an apparatus for use with the devices, and a process for screening for analyte in a
sample using the devices and apparatus are also provided. Samples suspected of
10 containing analyte are added to a disposable self-contained sample tray containing one
or more sample wells, mixed with a reagent, drawn into one or more spaced-apart
capillary tubes held within a disposable cartridge connected to an analytical apparatus,
reacted with a binding member on the surface of the capillary tube, washed to stop
the reaction, and dried by the apparatus. The capillary tube is then exposed to a
15 signal generation device to create a fluorescence signal that is detected using a signal
detector. The apparatus determines the presence of the analyte and optionally
determines the amount of analyte present in the sample, and presents the results to
the operator.